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UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

52

S

CONTRCL. R-4

Insect

Annual Report, 1944

A N N U A L I N S E C T R E P O R T

REGION IV

1944



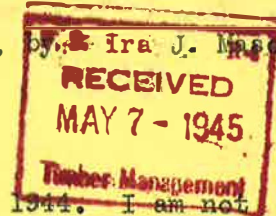
Office Memorandum • UNITED STATES GOVERNMENT

TO : Regional Forester, Ogden, Utah

DATE: May 2, 1945

FROM : E. E. Carter, Chief, Division of Timber Management, By: Ira J. Mason

SUBJECT: S, CONTROL, R-4, Insect, Annual Report, 1944



Reference is made to your Annual Insect Report for 1944. I am not going to comment on the forest conditions and projects which you discuss, as we have been in correspondence with you concerning the individual projects and there is little more to be added now as a result of reviewing your report. However, I do have two comments which, I believe, are worth passing on.

Have you considered undertaking some training of field personnel in recognition of and identification of damage caused by the various insect species? I am afraid sometimes we lean too heavily upon the Bureau of Entomology and Plant Quarantine people. The situation which developed on the Brockman-Clear Creek Divide on the Caribou Forest suggests that perhaps the Forest personnel were not sufficiently aware of what insect damage was and how to tell it. I realize that condition may not be general throughout Region 4 but believe that you would do well to consider giving the field men some training along the lines indicated.

I note with interest your instructions to discontinue girdling in favor of poisoning. There is another compound available that apparently is as effective as sodium arsenite but is not poisonous to stock. It is ammonium sulfamate which is put out commercially by the Dupont people as annate. There have been some wartime restrictions on its distribution, but we understand that it has been made available in lots sufficient for experimenting. I would suggest that you look into the possibility of using annate instead of an arsenite compound for we have learned before that the use of arsenicals invites trouble.

In going over the tables that accompanied your letter, we noticed an error in the Calendar Year 1943 entries which should be called to your attention. The entry in column 13 for the Dixie Forest should be \$6,293.30 instead of \$6,283.30. This changes the total to \$20,861.03 instead of \$20,851.03.

*Clark:-
lets try and get
a small amt.
and try it on
the Ashley or
some other
forest.
mbr*

Ira J. Mason

CONTROL, R-4
Insect
(Annual Report, 1944)

April 11, 1945.

Chief, Forest Service
Washington, D. C.

Dear Sir:

The following report covers the insect situation for the calendar year 1944.

As indicated in the table below, developments during the year were decidedly unfavorable. It seemed at the beginning of the year that despite difficulties with respect to labor we might be able to catch up a number of loose ends and reduce the insect control work load to a maintenance basis. However, during the year two bad situations were detected, one in spruce on the Dixie the other in lodgepole pine on the Caribou. In addition to this, the season was such that build-ups occurred elsewhere, and we now find the situation not at all favorable.

a. D. monticolae

	N. A. 1943 <u>Survey</u>	<u>Treated</u>	N. A. 1944 <u>Survey</u>
Ashley	1,300	902	6,200
Caribou	-	-	20,000
Minidoka	464	688	385
Wasatch	1,000	1,683	-

b. D. ponderosae

Ashley	760	1,319	1,503
Dixie	-	-	410
Powell	2,210	2,271	-

c. D. engelmanni

Dixie	-	-	1,000
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1. Mountain Pine Beetle (*D. monticolae* Hopk.)

a. Ashley.

A comparison of the attached survey map for 1944 with that accompanying our 1943 annual report indicates quite clearly the build-up which has occurred in the lodgepole pine type during 1944.

As indicated, some work by the ranger force was done on the Hoop's Lake unit which the 1943 survey indicated was the sole remaining hot spot. The fall survey indicates, however, bad situations generally throughout previously treated areas.

b. Cache.

Some 287 trees were treated on the small, scattered areas which were inspected by the Bureau of Entomology and Plant Quarantine and this office and treatment recommended. This cleans up all known areas of heavy infestation.

c. Caribou.

Nothing was known of any infestation on the Caribou until the Supervisor asked in late August for a check-up on what seemed a bad situation. An inspection by this office and the Bureau of Entomology and Plant Quarantine indicated "on the Brockman-Clear Creek divide there is an infestation of some 13,000 lodgepole pine trees which have been attacked during the 1944 season.

Although the insects have been present in this area for some three or four years the infestation developed quite rapidly during the past two seasons. It is estimated that this year's attack shows at least a 250 percent increase over the 1943 infestation. The attacks are heavy and there is no reason to assume that there will not be a comparable increase in 1945." (1)

A further examination by the Bureau of Entomology and Plant Quarantine (2) indicated an additional 6,593 trees on other units in this general locality.

Control work was begun on the Brockman-Clear Creek unit in September and has continued with brief interruptions when the crew was diverted to road

(1) Evenden's memorandum of September 6, 1944.

(2) Gibson's report of November 8, 1944.

work during bad weather, through the winter. The usual difficulties of mud and bad weather and shortage of manpower in the fall were encountered. At the close of road work in the late fall some of this labor together with short-term guards made up a crew of 25 to 30 men and a good deal was accomplished.

It has been planned to concentrate work on the Brookman-Clear Creek unit until this is cleaned up. Two mill operators have been interested in the utilization of infested material and it is expected they will remove about half the estimated 13,000 trees in the spring. They too, have difficulty in obtaining labor and equipment but the Supervisor feels confident they will be able to carry out their contract. If so, it should be possible to complete the control on this unit this spring.

d. Minidoka.

The Minidoka treated 688 trees during 1944.

Field examination during the summer by the Bureau of Entomology and Plant Quarantine and this office indicated that generally speaking, the forest was in good shape. The forest reports some 275 scattered trees in need of treatment on two divisions of the forest.

e. Wasatch.

The 1943 fall survey indicated some 1,120 trees in need of the treatment over and above an estimated 5,960 on the Rock-Fish Creek unit which has been abandoned for the duration. The infested area was unit 3, the Broadhead-Raystack unit.

Work on this unit was done by a crew of 16 to 17-year old high school boys with three or four old men as overhead. Some 1,683 trees were treated and the unit well cleaned up.

It will be noted that costs were high but the Supervisor states "considering their youth and inexperience the crews achieved better than expected results". He points out increased costs as compared with 1941 of 70 percent in wages and 100 percent in equipment rentals. He notes a change in attitude over that of the previous year and comments "morale held up well. The boys were anxious to get into good physical condition and there was no complaint in connection with the long distances and hard climbing to some of the work."

In connection with the Rock-Fish Creek infestation attention is directed to our remarks on page 3 of the report for 1943. The record of new attacks for these units is now as follows:

1939	-	4,300
1940	-	11,592
1941	-	16,560
1942	-	8,563
1943	-	6,960
1944	-	12,260

1945

31,000

Fig. 2, 700

We would agree with the Bureau of Entomology and Plant Quarantine's conclusion "our hope that the infestation in the primitive area would continue to decline was not realized. It now looks as though the infestation may continue until all of the larger trees are killed. Within the next few years the infestation in the Fish Creek unit will spread into the Granddaddy Lakes unit the same as the infestation in Rock Creek is spreading into Squaw Basin."

f. Other.

Other forests report no epidemics.

The Targhee states "so far as we know there is no infestation of *D. monticolae*". The Bureau of Entomology and Plant Quarantine reports finding a group of nine to ten containing 1944 attacks with no redtops in evidence and states a check-up should be made in 1945.

2. Black Hills Beetle (*B. ponderosae* Hopk.)

a. Ashley.

Some 1,319 ponderosa pine trees were treated in 1944.

The 1944 fall survey indicates 840 trees to treat on the north side of the forest and 663 on south side districts. The forest states "No control work has been done on the Lake Fork district (south side) since 1938. In 1944 there has been a notable increase in the number and virulence of attacks on both Forest and Indian lands and since it is probable that the Indian Service will treat the trees on Indian lands it is desirable that the infested trees on Forest land also be treated."

b. Dixie (Dixie-Powell)

1. Dixie Division.

A year ago it was reported that in view of present day costs it was likely the maintenance work being done on scattered trees on the Dixie could probably no longer be justified.

Field examination by the Bureau of Entomology and Plant Quarantine in 1944 indicated some areas which it seemed should be surveyed. This was done and two areas of hot spots were found - one on Lower Mammoth with 90 new attacks, the other on Pass Creek with 220. Since the survey was made 201 of these trees have been treated.

2. Powell Division.

A year ago it was estimated there were 2,210 trees in need of treatment. In 1944, 2,271 trees were treated and the fall survey indicates no hot spots remain.

3. Engelmann Spruce Beetle (D. engelmanni Hopk.)

Dixie.

A serious threat to the Engelmann spruce stands of the Dixie was found last fall on areas adjacent to the Cedar Breaks National Monument. About 1,000 trees were found on rather limited areas in that vicinity. Immediate action was taken by the local personnel, some 595 trees have been treated and an additional 87 felled but not treated, leaving about 300 to treat.

As listed in detail in the Supervisor's letter of December 12, 1944, vigorous action was taken by the local personnel last fall. The aid of four operators was enlisted and much of the material handled was removed by them and the slabs burned. It is expected that this program will be continued next summer when work can be resumed and every effort will be made to clean up this infestation. With luck this may be accomplished. The season is short as the areas are at an elevation of 10,000 feet but the use of power saws and tractors may make it possible to complete the job.

4. General.

A year ago the local force on the Ashley expressed the belief that the practice of girdling undesirable trees provided breeding grounds for bark beetles. The Bureau of Entomology and Plant Quarantine and this office examined closely a ponderosa pine sale area where this was thought to have happened and found this to be true. In many cases the girdled tree was the center of a group of redtops and the loss to reserved growing stock was serious.

At about the same time (August 28) the Bureau of Entomology and Plant Quarantine made the following statements regarding the Targhee: "On the north side of the valley, in the area where extremely severe losses have occurred, but where the previous season I had predicted that the

Douglas fir beetle infestation was at an end, there was a large group of Douglas fir trees along the Forest Service road which showed an abnormal foliage discoloration. Upon examination it was found that these trees were so-called wolf trees left from a previous timber sale and had been subsequently girdled. The exact date of this girdling is not known but it is apparent that it was done some few years ago. Although it is realized that such stand improvements are necessary, it is believed that if subsequent losses of Douglas fir on cut-over areas are to be avoided then this procedure of destroying undesirable trees will need to be discontinued."

In view of the above, instructions have been issued to the field to discontinue girdling in favor of poisoning as described in the attached circular letter.

5. Funds.

The spruce infestation on the Dixie has been given top priority and funds sufficient to complete the job allotted.

The lodgepole pine job on the Caribou is second on the list and sufficient funds to carry the work through to June 30 have been allotted. If the work goes through as outlined this should clean up the Brookman-Glear Creek unit. In order that our gains may be held the other adjacent units on the Caribou should, as we see the situation now, be given priority over any known infestation with the exception of the Dixie spruce infestation, for the coming fiscal year.

Very truly yours,

W. B. RICE, Regional Forester,

By



Enclosure.

F. W. Gadden

S
STAND IMPROVEMENT
General

Ogden, Utah
February 1, 1945.

To: FOREST OFFICERS
From: W. L. Robb, A.R.F.
Subject: Girdling of Trees

It was brought very forcibly to our attention last year that the girdling of trees subject to insect attacks can be disastrous. In two cases, one in ponderosa pine on the Ashley, the other in Douglas fir on the Targhee, the girdled trees acted as "bug bait" and through such action considerable losses resulted. This was particularly unfortunate as the losses occurred largely in cut-over areas and the loss of growing stock was heavy.

We, therefore, will be forced to abandon girdling of any species with the exception of white and alpine fir. Where wolf or otherwise undesirable trees must be destroyed, poisoning is probably the method that will have to be used.

This method has been used for several years on the Bridger and on the Cache with good results. The tree is killed in several weeks' time and this, together with the fact that the sapwood is poisoned, makes the tree immune to attacks by insects.

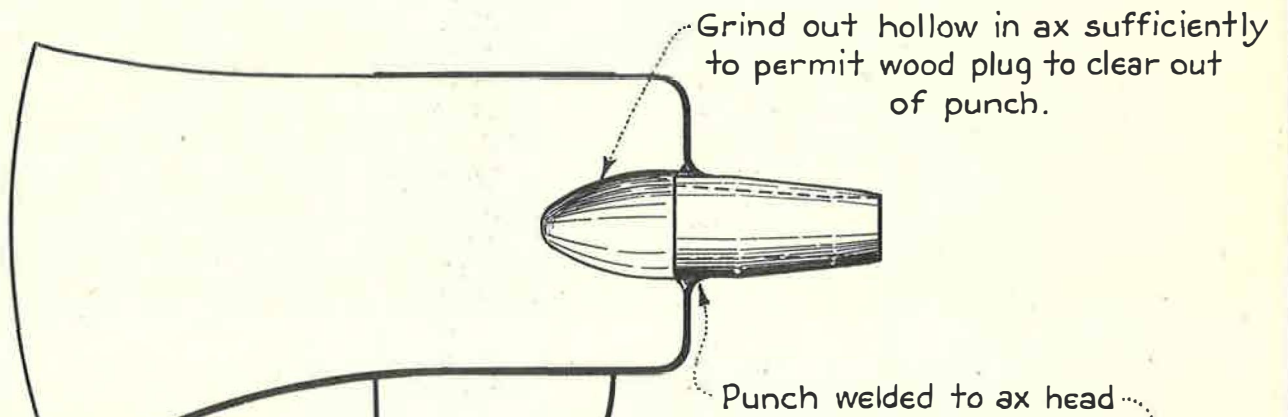
The methods to be followed are described by Mr. Pearson in his Forestry Publication No. 6 "Timber Stand Improvement in the Southwest" as follows:

"

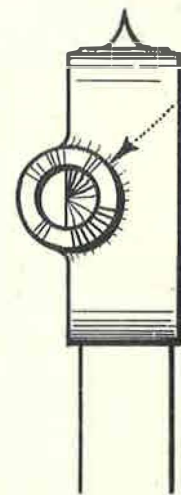
"During recent years a method of poisoning trees has been developed, through the use of C.C.C. funds, that, on the Fort Valley experimental forest, has virtually supplanted felling. A 15 percent solution of sodium arsenite is used. The tree dies within about two weeks, and is left standing. Trees up to 12 inches in diameter can be killed for about 3 cents each, and larger ones at a small additional cost.

"The procedure is simple. One or more holes $1\frac{1}{2}$ or $\frac{5}{8}$ inch in diameter and 4 to 5 inches deep are bored in the trunk with an ordinary brace and bit. They are inclined at an angle of 45 degrees, to prevent the solution from running out, and instead of being directed toward the heart of the tree are so placed that they bring the fluid as near as possible to the active tissues just inside the bark. The number of holes varies with d.b.h. about as follows: Less than 6 inches, one hole; 6 to 11 inches, two holes; 12 to 16 inches, three holes; 17 to 21 inches, four holes. If the crowns are unusually large, one

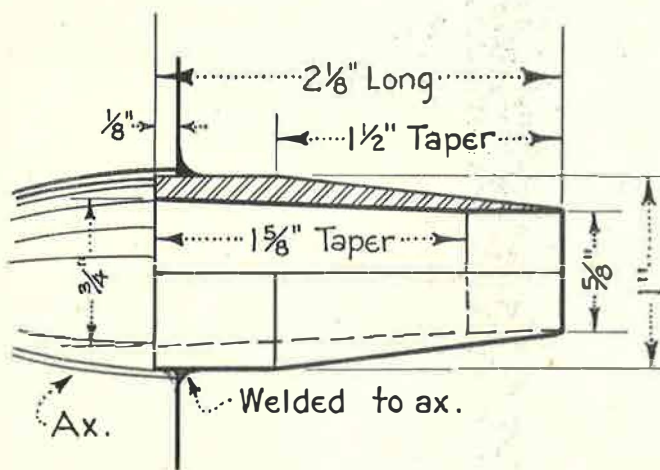
(Over)



SIDE VIEW
ONE HALF SCALE.



END VIEW



QUARTER SECTION OF PUNCH

FULL SCALE

Note:
Made of steel, or steel bushing.
For thick barked trees, use a
longer punch.

AX PUNCH USED IN POISONING TREES

INSECT CONTROL SUMMARY

Region IV

C. T. 1942

Year	Name of Unit	Forest	Duration of Project (incl. dates)	Tree Species Affected	Insect Responsible	Method Followed	Acres Treated	Trees Treated	Per- cent Trees Felled (10)	Expenditures							Total Cost per Tree	Oil Used Gal. per Tree	No. Man Days Used	Percent Reduction Obtained
												P & M	Cont. Time & Expenses	Total Cost of Project	Total Cost per Acre					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	
1942	Aashley N. F.		4/1-6/16, 11/4-12/23	L.P.	D. monticolae	Fell, deck, burn	3,608	1,750	100			7,424.00	494.00	7,918.00	4.52	2.190	-	.886		
	Dixie "		5/1 - 6/27	P.F.	D. ponderosa	Fell, peel, burn	6,480	458	100			2,822.11	42.00	2,864.11	6.25	.442	-	.485		
	Minidoka N. F.		7/10 - 7/15	L.P.	D. monticolae	Ortho spray	1,200	103	50			-	65.50	65.50	.64	.055	1.00	200		
	Powell "		11/17 - 12/24	P.F.	D. ponderosa	Felling & burning	2,450	516	100			2,528.17	26.50	2,554.67	4.95	1.040	-	.441		
	Wasatch "		5/11 - 7/29	L.P.	D. monticolae	Felling, deck, burn, Ortho	4,690	4,622	100			20,094.60	1,205.82	21,300.42	4.60	4.540	.94	.3391		
			10/19 - 12/5			Total for R.M.	18,428	7,449	100			32,856.88	1,833.82	34,702.70	8.85	1.883	.60	.9403		
C. T. 1943																				
1943	Aashley N. F.		5/10-6/9 and 10/15 - 12/31	P. ponderosa	P. ponderosa	Fell and burn	1,000	1,035	100			1,668.00	343.00	2,011.00	1.94	2.01	-	.221		
			4/19-5/6 and 9/21 - 12/31	P. castanea lat.	D. monticolae	" " "	640	1,308	100			2,747.00	669.00	3,416.00	2.61	5.34	-	.308		
	Cache N. F.		11/8 - 11/10	P. castanea lat.	" " "	" " "	20	55	100			50.00	25.00	75.00	1.36	3.75	1.0	.8		
	Dixie N. F.		4/20 - 6/19	P. ponderosa	D. ponderosa	" " "	5,490	650	100			6,283.30	114.92	6,408.22	9.86	1.17	-	.850		
			10/20 - 11/13		D. barberi															
	Minidoka		July-Oct.-Dec.	P. castanea lat.	D. monticolae	Fell, burn, ortho	45	281	100			425.00	92.60	517.60	1.84	11.28	1.5	.69		
1944	Powell		1/1-3/27; 5/3-6/30; 11/15 - 12/31	P. ponderosa	D. ponderosa	Felled & burned	22,010	2,174	100			12,899.73	115.61	13,015.34	5.99	.59	-	2,044		
	Wasatch		5/24 - 7/27	P. castanea lat.	D. monticolae	Fell, burn, ortho	3,150	1,023	100			6,626.27	789.00	7,415.27	7.25	2.35	2.1	.923		
				Total - D. ponderosa			25,500	3,859	100			20,651.03	573.51	21,434.56	5.55	.75	-	3,124		
				D. monticolae			3,855	2,687	100			9,848.27	1,575.80	11,423.87	4.28	2.96	2.0	1,304		
C. T. 1944																				
1944	Aashley N. F.			P. ponderosa	P. ponderosa	Fell & burn	7,100	1,319	100			1,075	506	1,581	1.20					
				P. castanea	D. monticolae	" " "	3,300	902	100			2,922	506	3,428	3.80					
	Cache N. F.			P. castanea	D. monticolae	" " "	8,200	287	100			508	88	596	2.08					
	Caribou N. F.			P. castanea	D. monticolae	" " & ortho	640	1,291	100			11,223	1,037	12,260						
	Dixie N. F.			D. engelmanni	D. engelmanni	Fell & burn	125	595	100			3,027	102	3,129	5.26					
				P. ponderosa	D. ponderosa	Fell, burn or peel	35,920	2,472	100			14,210	392	14,602	5.91					
1944	Minidoka N. F.			P. castanea	D. monticolae	Fell, burn or ortho	175	688	100			2,551	33	2,584	3.76					
	Wasatch N. F.			" " "	" " "	" " "	8,760	1,683	100			13,244	1,080	14,324	6.51					
* 2,412 felled not yet treated.																				

INSECT CONTROL SUMMARY

ASHLEY NATIONAL FOREST

Year	Name of Unit	Forest	Duration of Project (incl. dates)	Tree Species Affected	Insect Responsible	Method Followed	Acres Treated	Trees Treated	Percent Trees Felled	Expenditures									
										(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1942	East Fork of Smith's Fork	Ashley	4/1 - 6/16	L. P.	D. monticolae	Felled, decked and burned	2,962	1,228	100			4,365.00	260.00	4,625.00	3.77	1.56	-	580	
1942	East Fork of Smith's Fork, Dry Creek, Shagreen (upper)		11/4 - 12/23	*	*	*	446	365	97			2,994.00	90.00	3,084.00	8.45	6.91	-	269	
1942	Summit Springs		10/19 - 11/5	P. P.	D. ponderosa	*	200	157	100			54.00	144.00	209.00	1.33	1.04	-	37	
						Total	3,608	1,750	100			7,424.00	494.00	7,918.00	4.52	2.19	-	886	
1943	Snake, Green Lakes, Lost Springs, and David Hole		5/10 to 6/9/43; 10/23 to 2/17/44	P. P.	D. ponderosa	Felled, decked, and burned	1,000	1,035	100			1,658.00	343.00	2,001.00	1.54	2.01	-	221	
1943	Deer Hills		4/19-28/43	L. P.	D. monticolae	*	320	469	100			1,024.00	288.00	1,312.00	2.80	4.10	-	106	
1943	Loose Creek		4/29 to 5/6/43; 9/21 to 1/1/44	*	*	Total	190	619	100			1,773.00	341.00	2,104.00	2.41	6.67	-	198	
							1,890	2,343				4,415.00	1012.00	5,427.00	2.32	3.30	-	525	
1944	Lost Springs		1/17/44 to 2/18/44	P. P.	D. ponderosa	Felled, decked, and burned	5,000	673	100			637.00	130.00	767.00	1.14	.15	-	121	
1944	Elk Park		5/29 to 6/19/44	*	*	Felled, decked, and burned	100	475	100			294.00	308.00	602.00	1.27	6.02	-	52	
1944	Carter Creek-Barot Creek		1/5 to 1/16/45	*	*	*	2,000	171	100			144.00	70.00	214.00	1.25	.11	-	30	
1944	Sage Creek-Barot Creek		5/15 to 5/27/44	L. P.	D. monticolae	*	1,500	275	100			2,520.00	379.00	2,899.00	10.54	1.93	-	100	
1945	Sage Creek-Barot Mountain		11/29/44 to 1/13/45	*	*	475 trees felled, decked, and burned 148 trees disposed of by timber operator	1,800	627	76			402.00	127.00	529.00	.84	.29	-	138	
								2,221						5,011.00					

INSECT CONTROL SUMMARY

CACHE NATIONAL FOREST

Year	Name of Unit	Forest	Duration of Project (Incl. dates)	Tree Species Affected	Insect Responsible	Method Followed	Acres Treated	Trees Treated	Per- cent Trees Killed (10)	Expenditures				Total Cost of Project	Total Cost per Tree	Oil Used Gal. per Tree	No. Man Days Used	Percent Reduction Obtained	
										(11)	(12)	P & M	Cont. Time & Expenses						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1983		Cache	11/8 to 11/10	P. contorta lat.	D. denticoles	Fell and burn	20	55	100			50.00	25.00	75.00	1.36	3.75	1.0	8	
1984	Trail Hollow-Pearl Creek		10/8 to 10/31/84	"	"	"	5,000	190	100			260.12	67.60	327.72	1.72	0.546	-	40	
1984	Willow Springs, Green Basin, Paris Flat		10/14 to 10/28/84	"	"	"	2,200	97	100			247.68	20.00	267.68	2.75	.1216	*	32	

I M S K C 1 2 C O N T R O L S C H E M A T I C

CARIBOU NATIONAL FOREST

Year	Name of Unit	Forest	Duration of Project (incl. dates)	Tree Species Affected	Insect Responsible	Method Followed	Acres Treated	Trees Treated	Per-cent Trees Felled	Expenditures				Total Cost of Project	Total Cost per Tree	Total Cost per Acre	Oil Used Gal. per Tree	No. Man Days Used	Percent Reduction Obtained	
										P & M	Cont. Time & Expenses									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	
1940	Rattlesnake Basin	Caribou	6/4 to 6/12/40	L. P.	D. monticolae	Burned standing with oil and felled and burned	100	149	40			-	109.42	109.42	.73	1.09	3/4	28	90	Controlled
1944	Clear Creek-Brockman		9/9 to 12/31/44	*	" "	Ortho.) Burn) Fall)	640	1,291 132 2,280 3,703	100 100 100			11,222.99	1,036.79	12,259.78	3.31	19.16	1-1/2	1,051	20	

REMARKS:

INSECT CONTROL SUMMARY

DIXIE NATIONAL FOREST

Year	Name of Unit	Forest	Duration of Project (Incl. dates)	Tree Species Affected	Insect Responsible	Method Followed	Acres Treated	Trees Treated	Percent Trees Felled (10)	Expenditures									
										(11)	(12)	P & M (13)	Cost, Time & Expenses (14)	Total Cost of Project (15)	Total Cost per Tree (16)	Total Cost per Acre (17)	Oil Used (Gal. per Tree (18)	No. Man Days Used (19)	Percent Reduction Obtained (20)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1942	Strawberry-Swaine #2	Dixie	6/1 - 6/27 11/9 - 12/19	P. P.	D. ponderosae D. barberi	Fell, peel and burn	6,480	458	100			2,822.11	42.00	2,864.11	6.25	.442	-	485	
1943	Upper Mammoth #3		4/20-6/19	P. P.	" " "	" " "	2,840	553	100			4,155.30	57.44	4,212.74	7.73	1.51	-	578	
1943	Strawberry-Swaine #2		10/21-11/3	"	" " "	" " "	750	18	100			366.00	6.40	372.40	20.69	.50	-	49	
1943	Panguitch Lake #6		10/20-11/13	"	" " "	" " "	1,900	79	100			2,715.00	38.05	2,753.05	22.28	.83	-	233	
	<u>Dixie Unit</u>				Total 1943		5,430	650	100			6,299.30	114.92	6,414.22	9.96	1.17	-	860	
1944	Upper Mammoth #3		10/9-11/11/44	N. S.	D. engelmanni	Felling, salvage of good logs by sawmills, burning of slabs	125	595	100			3,027.00	102.00	3,129.00	5.26	25.03	-	265	
1944	Panguitch Lake #6		11/21-12/29/44	P. P.	D. ponderosae D. barberi	Felling & burning	1300	201	100			1,617.00	20.00	1,637.00	8.14	1.26	-	222	
	<u>Powell Unit</u>																		
1944	Bliss Fly #1		1/1-6/30/44	"	D. ponderosae	" " "	16,500	509	100			3,454.60	97.00	3,551.60	6.98	.22	-	515	
1944	Park #2		6/1-12/31/44	"	" " "	Felling & peeling	7,030	120	100			404.49	27.00	431.49	3.60	.06	-	63	
1944	Badger #3		1/1-6/30/44	"	" " "	Felling & burning	7,130	658	100			4,481.22	110.00	4,591.22	6.98	.64	-	666	
1944	Blubber #4		7/1-12/31/44	"	" " "	Felling & peeling	6,820	106	100			360.15	21.00	381.15	3.60	.06	-	55	
1944	Kaneb #5		7/1-12/31/44	"	" " "	" " "	10,220	515	100			1,790.84	61.00	1,851.84	3.60	.18	-	269	
1944	Podunk #6		7/1-12/31/44	"	" " "	" " "	6,240	111	100			364.13	15.00	399.13	3.60	.06	-	76	
1944	Cameron #12		1/1-6/30/44	"	" " "	Felling & burning	1,660	252	100			1,717.36	41.00	1,758.36	6.98	1.05	-	255	
							57,045	3,067	100			17,238.79	494.00	17,732.79	9.78	.31	-	2,368	

REMARKS:

INSECT CONTROL SUMMARY

MINIDOKA NATIONAL FOREST

Year	Name of Unit	Forest	Duration of Project (Incl. dates)	Tree Species Affected	Insect Responsible	Method Followed	Acres Treated	Trees Treated	Percent Trees Killed	Expenditures				Total Cost of Project	Total Cost per Tree	Total Cost per Acre	Oil Used Gal. per Tree	No. Man Days Used	Percent Reduction Obtained	
										P & M	Cost. Time & Expenses									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	
1942	Cassie Division	Minidoka	7/10 - 7/15	L. P.	D. ventricosa	Ortho		59	None				19.50	19.50	.33	-	Oil on hand and no record	-	-	
"	Sublett Division		" "	"	"	"		44	100				46.00	46.00	1.05	-	Mainst.	-	-	
1943	Ecklund Compartment - Burley-Oakley Working Circle		July	"	"	Ortho - Oil		19	100		32.00	2.00	34.00	1.78	8.55	1-1/2	4-1/4	"		
1943	Coal Pit Compartment - Burley-Oakley Working Circle		"	"	"	"	8	35	100		57.00	4.00	61.00	1.74	7.62	1-1/2	7-1/4	"		
1943	Basin Patch Compartment - Burley-Oakley Working Circle		"	"	"	"	2	16	100		28.00	2.00	30.00	1.88	15.00	1-1/2	3-1/4	"		
1943	1st & 2nd Fork Compartment - Burley-Oakley Working Circle		"	"	"	"	4	20	100		32.00	5.47	37.47	1.87	9.37	1-1/2	"	"		
1943	Cottonwood Compartment - Burley-Oakley Working Circle		"	"	"	"	6	24	100		40.00	2.00	42.00	1.75	7.00	1-1/2	5-1/4	"		
1943	Sawmill Compartment - Burley-Oakley Working Circle		"	"	"	"	8	40	100		60.00	10.94	70.94	1.77	8.87	1-1/2	9	"		
1943	Cottonwood Compartment Cotton Ridge Point Burley-Oakley Working Circle		October	"	"	Saved by local mill. Burned slabs and peeled stumps	2	21	100		-	2.73	2.73	.13	1.36	-	-	"	Permitted under Adm. Order	
1943	Cottonwood Compartment South Bostetter Burley-Oakley Working Circle		December	"	"	Decked and burned	6	79	100		176.00	9.46	185.46	2.35	30.90	-	27	"		
1943	Lower Rock Creek		July	"	"	Ortho - Oil	5	27	100		-	54.00	54.00	2.00	10.80	1-1/2	9	"		
Total 1943							281	281		425.00	92.60	517.60	1.84							
* No survey made in 1942 to secure check on percent of reduction obtained.																				
1944	Cottonwood Compartment		May	L.P.	"	Decked & burned	30	111	100		467.00	-	467.00	4.20	15.56	-	74	95		
1944	1st and 2nd Fork Comp.		June	"	"	"	40	123	100		327.00	-	327.00	2.65	8.18	-	29	95		
1944	Ecklund & Basin Patch Comp.		June	"	"	Orthene treat.	50	175	100		545.00	-	545.00	3.11	10.90	1.9	50	95		
1944	Sawmill & Trapper Comp.		July	"	"	"	30	116	100		752.00	-	752.00	6.48	25.06	1.7	88	95		
1944	Badger Gulch-Front Comp.		9-19 to 10/25/44	"	"	Decked & burned	10	85	100		264.00	-	264.00	3.10	26.40	-	24	80		
1944	Coal Pit Compartment		10-26 to 11/14/44	"	"	"	15	52	100		156.00	-	156.00	3.00	10.40	-	16	90		
1944	Mahlstrom Hollow		June	"	"	Decked & burned Orthene treat.	2	24	100		40.00	33.00	73.00	2.80	-	2.0	8	-		
							128	128				2,584.00								

REMARKS: 1942 - All infested trees found were treated.

INSECT CONTROL SUMMARY

WASATCH NATIONAL FOREST

Year	Name of Unit	Forest	Duration of Project (Incl. dates)	Tree Species Affected	Insect Responsible	Method Followed	Acres Treated	Trees Treated	Per- cent Trees Felled	Ex p e n d i t u r e s					Total Cost per Tree	Total Cost per Acre	Oil Used Gal. per Tree	No. Man Days Used	Percent Reduction Obtained		
										(11)	(12)	P & M (13)	Cont. Time & Expenses (14)	Total Cost of Project (15)							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)		
1942	Wyoming Unit	Wasatch	5/11 - 6/18	L. P.	D. monticolae	Fell, deck, burn	1,847	346	100			1,545.98	91.50	1,637.48	4.73	.89	-	372	No survey	*	
*	Iron Mine		6/7 - 7/29	*	*	" " "	2,000	(1132 2908 4040	100 100 100			14,982.64	663.50	15,646.14	3.87	7.83	1.5	2,435	93.6%	**	
*	Fish Creek		10/19 - 12/5	*	*	Fell, deck, burn	843	(236 784	100 100			2,225.98 1,340.00 3,565.98	255.82 195.00 450.82	2,481.80 1,535.00 4,016.80	10.50 1.96	4.80	-	584			
						Total for D. Y. 1942	4,690	4,622 Plus 784 spotted	100			20,094.60	1,205.82	21,300.42	4.60	4.54	-	3,391			
												# Includes cost of spotting 784 trees yet to treat and an inventory of approximately \$1,000 worth of ortho, oil, hay, oats, feed, etc.									
1943	Iron Mine Unit		5/24 - 7/28	L. P.	D. monticolae	Ortho, felled	2,556	864	100			5,765.27	686.00	6,451.27	7.46	2.73	2.1	283	76.9	Successful	
	Broadhead-Haystack Unit		6/18 - 7/27	*	*	" " "	600	189	100			861.00	103.00	964.00	5.06	1.60	2.0	120	-	Partial clean-	
	Total for calendar year	1943					3,156	1,053	100			6,626.27	789.00	7,415.27	7.25	2.35	2.1	403		up only	
1944	Broadhead-Haystack Unit		5/15-8/5/44	L. P.	D. monticolae	Ortho, felled	7,040	1,447	100			11,653.57	929.20	12,582.77	8.69	1.78	2.2	1,430	Not	Believed	
1944	Shingle Creek		6/30-7/15/44	*	*	" " "	1,720	235	100			1,590.78	150.80	1,741.58	7.37	1.01	1.9	195	surveyed	successful	
							8,760	1,682	100			13,244.35	1,080.00	14,324.35	8.51	1.63	2.1	1,625			
												* Includes approximately \$400 of ortho and oil on hand or loaned to other forests.									

REMARKS: * Believed successful
** Some clean-up necessary

INSECT CONTROL SUMMARY

WASATCH NATIONAL FOREST

Year	Name of Unit	Forest	Duration of Project (Incl. dates)	Tree Species Affected	Insect Responsible	Method Followed	Acres Treated	Trees Treated	Percent Trees Felled	Expenditures					Total Cost per Tree	Oil Used Gal. per Tree	No. Man Days Used	Percent Reduction Obtained			
										P & M	Cont. Time & Expenses	Total Cost of Project									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)		
1942	Wyoming Unit	Wasatch	5/11 - 6/18	L. P.	D. monticolae	Fell, deck, burn	1,847	346	100			1,545.98	91.50	1,637.48	4.73	.89	-	372	No survey	*	
"	Iron Mine		6/7 - 7/29	"	"	" " " Ortho, felled	2,000	(1132) (2908) 4040	100 100			14,982.64	663.50	15,646.14	3.87	7.83	1.5	2,435	93.6%	**	
"	Fish Creek		10/19 - 12/5	"	"	Fell, deck, burn	843	(236) (784)	100 spotted, not treated, costs			2,225.98 1,348.00 3,569.98	255.82 195.00 450.82	2,481.80 1,535.00 4,016.80	10.50 1.96	4.80	-	584			
Total for D. Y. 1942							4,690	4,622	100			20,094.60	1,205.82	21,300.42	4.60	4.54	-	3,391			
							Plus 784 spotted														
										# Includes cost of spotting 784 trees yet to treat and an inventory of approximately \$1,000 worth of ortho, oil, bay. ente, food, etc.											
1943	Iron Mine Unit		5/24 - 7/28	L. P.	D. monticolae	Ortho, felled	2,550	864	100			5,765.27	686.00	6,451.27	7.46	2.33	2.1	203	76.9	Successful	
	Broadhead-Haystack Unit		6/18 - 7/27	"	"	"	600	158	100			861.00	103.00	964.00	6.06	1.60	2.0	120	-	Partial clean-up only	
Total for calendar year 1943							3,150	1,022	100			6,626.27	789.00	7,415.27	7.25	2.35	2.1	323			
1944	Broadhead-Haystack Unit		5/15-8/5/44	L. P.	D. monticolae	Ortho, felled	7,040	1,447	100			11,653.57	929.20	12,582.77	8.69	1.78	2.2	1,430	Not	Believed	
1944	Shingle Creek		6/30-7/15/44	"	"	"	1,720	216	100			1,590.78	150.80	1,741.58	7.37	1.01	1.9	195	surveyed	successful	
							8,760	1,663	100			13,244.35	1,080.00	14,324.35	8.51	1.63	2.1	1,625			
										* Includes approximately \$400 of ortho and oil on hand or loaned to other forests.											

REMARKS: * Believed successful
** Some clean-up necessary

Insect Survey
Fall 1944

RANGER DISTRICT FIVE

ASHLEY NATIONAL FOREST

UTAH & WYOMING

SCALE 1 INCH = 1 MILE

LEGEND

— FOREST BOUNDARY
- - - RANGER DISTRICT BOUNDARY
1935

- ⑥ Routes scouted by horseback
N.A. counted on scouting trips
Succed cruise strip
④ N.A. counted on cruise
strip number
6 L M H
Light attacks
Medium attacks
Heavy attacks
Area and number of trees
treated spring 1944

L. W. T.

